RESTORATION ADVISORY BOARD MEETING

THURSDAY, APRIL 20, 2000

CORONADO, CALIFORNIA

REPORTED BY: Nancy A. Lee, CSR No. 3870

ATTENDANCE:

John Locke
Carla Fargo
Bill Collins
Debbie Wankier
Neal Clements
Bob Geilenfeldt
Foster Marshall
Mark Wankier

Mark Bonsavage

Art Van Rooy

Daniel Cordero

Humberto Tessada

Jerry Bailey

CORONADO, CA., THURSDAY, APRIL 20, 2000, 6:35 P.M.

MS. FARGO: Good evening everyone. I'm so sorry to have missed the last couple of meetings but I am here tonight. I'm going to go ahead and chair the meeting, and I welcome you all.

Let's see, we need to approve the minutes of the March 16th meeting. Is there any discussion of those minutes?

MR. GEILENFELDT: They all appear to be in order. I read them.

MR. COLLINS: Can I have a motion?

MR. GEILENFELDT: Motion.

MR. VAN ROOY: Second.

MS. FARGO: Everybody in favor of approving the March 16, 2000 minutes as prepared vote in favor. Opposed? All right. Then we'll adopt the minutes as prepared.

The next item on the agenda will be the Site 10 Extended Remedial Investigation presentation by Mark Bonsavage.

MR. BONSAVAGE: I'm going to talk about Site 10 -- the

shoreline area at IR Site 10 today.

There's a couple of things going on out at the site, and basically I'll just cover all of them and tell you what's going on out there.

IR Site 10 is out towards the northern bend of the island. It's in this area, and we're looking at the shoreline area of IR Site 10 which is right along here.

Site 10 is basically part of a -- it was an old scrap yard, a DRMO -- in the military it's what they call a DRMO where they basically recovered materials or disposed of different types of materials.

There were two previous cleanups: One was at the DRMO itself in order to cleanup the yard with a lot of scrap metal and PCBs; and then there was a removal action at the shoreline area where they took out an area of slag that had a radium component to it. Basically at this site they used to melt down airplanes, and in airplanes there were radium dials, so in the slag material you would find small amounts of radium.

We just completed a remedial investigation for the shoreline area at Site 10, and it's out for review. It's currently out. I just put a copy in the library for anybody that wants to look at it and comment on it.

We're working on an EE/CA, which is an Engineering Evaluation/Cost Analysis. That's part of the removal action where we looked at the results as we were doing the RI and realized that we were going to have to go out there and do something, so we started the removal action right when we were getting information that told us there was going to be a problem at this site.

15 May we expect to have a revised EE/CA back. And the EE/CA is really just the first step in a removal action where you take a look at -- well, just at the cost of cleaning it up and you compare more than just the cost. I think there's nine criteria which you look at, and you basically take a few different options.

We did four different options at this site where actually going in and digging out all the material was probably the

most extreme, and taking that material and putting it in a landfill somewhere else; and then there were all degrees in between of recycling it or digging out part of it; and the third option or fourth option, which we did -- third and fourth was actually contain it on the site.

And again, we're revising that document, and about 15 May is when we expect the revised document to be available. I'm actually going to get a revised copy this week. I figured it would be until then that we'd get one out.

MR. GEILENFELDT: Are you saying, Mark, you're not going to do the cap then?

MR. BONSAVAGE: Yes, we are. I just call it containment. So it is basically a cap on the site.

MS. FARGO: That's the sediments contained at the site.

MR. BONSAVAGE: It's a containment -- well, you'll see as we go on further. It's basically containing of the shoreline area, and you'll get a better idea as we go on.

MS. FARGO: Okay.

MR. BONSAVAGE: The second big document in a removal action is the RAP plan. It means Remedial Action Plan, which we're working on right now, and we suspect that on July 24th we'll have a RAP out for public review.

Now, between now and then I'll be working with Dan, getting -- well, we'll go ahead and view the design, and then Dan and his group will review it, and they'll do something called a CEQA analysis, which is the California Environmental Quality Act. So they basically make sure that it's compliant with CEQA. And Dan's group also has geologists and engineers which take a look at the design and just make sure that we're doing everything okay.

And we estimate -- well, I'm going to get him a copy sooner, and I estimate Dan will have about a month for him and his group to look at it. And then when we're all said and done, we'll get together in about July 24th we'll say it's going to be ready for

the public to make their comments on.

And we estimate that the actual work will be taking place in September, and I think it's September -- two or three months worth of work will be going on out there. And you get a better idea of what we're actually going to do as far as construction.

First I'd like to go over the remedial investigation, the document that's out. There's really three big parts to a remedial investigation. The first is to determine the nature and extent of the contamination. That should be ash. The nature -- really the slag and ash eroding from the bank and the extent. The source is in the bank and the material is eroding onto the beach. But it's a little more complicated than that, but that's the idea.

The second part is a Human Health Risk Assessment where we take the data that we collected during the study, and we run numbers on it, so to speak. We'll calculate what the cancer risk is from these concentrations at the site or what the acute risk is or is there any. We use what's called a hazard index where is there any immediate hazard from the contaminants.

And the third thing that we do is an Ecological Risk Assessment where we take a look to see if this is impacting the environment in any way.

MR. TESSADA: Mark, do you have any idea now of how much of that slag has washed into the bay and what the radiation is -- what the exposure is?

MR. BONSAVAGE: As far as the slag washing into the bay, we sampled the site. You'll see our sampling pattern is pretty extensive, and you'll see that most of the concentrations are up along the shoreline. And over time how much of this went into the bay, I have no idea. I really couldn't say.

MR. TESSADA: The amount of slag, just an average of what the radiation is? Just any idea?

MR. BONSAVAGE: Like the concentration of radiation that you expect for like a piece of slag out there?

MR. TESSADA: Yes.

MR. BONSAVAGE: I would say that typically it would be between like 5 and 30 picocuries per gram. Now, 5 is like the residential -- you know, it's accepted residentially as safe. So I'd say they were between like -- I've seen it up around 40 something, and I've seen it down around 5 and down to nothing. So it ranges, depending on what you've got out there.

MR. CLEMENTS: And we did that emergency removal action five years ago, so it was found.

MR. TESSADA: But how long had it been there?

MR. BONSAVAGE: Well, I'd say the '40s is when most of the -- you know, they were melting down the airplanes -- so 40, 50 years.

And as you see, the material's kind of like two different -- there's two different types of material. There's an ash and there's a slag.

Now, the slag is pretty solid. It pretty much stays together. It's a metal. It's like if you look -- I have some photographs, but you can't really see the details, but just basically iron parts all melted together. It's kind of like a piece of rebar or an anchor or something like that, so a lot of it's like iron type of material.

MR. LOCKE: Isn't the slag more like a lava rock?

MR. BONSAVAGE: Yes. And then there's a -- well, you'll see the slag also contains a lot of inert kind of like porcelain and stuff like that. You'll see all kinds of different materials in there.

MR. TESSADA: But the ash is really the one that you're most concerned about?

MR. BONSAVAGE: Yes. That's what we found in the ash mogul, so that's really where the concern is.

And the other thing we found out about the ash, the ash really -- you won't find the radium in the ash. We're really only finding -- like in the slag itself we're finding -- if you run your meter over the slag, you might get a hit, and in the ash we really didn't get any hits.

But, yeah, the slag area is where you're more likely to see it.

MS. FARGO: Is the slag a by-product of some process that was performed? Was there a --

MR. BONSAVAGE: There was a smelter.

MS. FARGO: Okay.

MR. BONSAVAGE: So basically they recovered the metals and this is what's left over is your slag.

MS. FARGO: Okay.

MR. BONSAVAGE: Not a very good photo, but that's the beach area of Site 10.

MR. COLLINS: That's where the former removal was done, the first one.

MR. BONSAVAGE: You can see the riprap we put up there so the former excavation backs up to the shoreline back up there. So this is really during the sampling. They're digging holes and getting samples off the beach.

That's just like a chunk of slag. That's what it looks like. You can see little pieces of porcelain and different types of metal.

Now, this is an area where -- this is like the slag -- this isn't really even slag. It's sort of melted down metal parts that aren't quite -- they weren't quite melted all the way down. You get some slag in there, and then you get another kind of material like an ash. I believe this is mixed with the ash. And, again, what we found is ash has high metals and it's mobile.

This is just a picture of some of the ash material, and you can see it's a bluish color which indicates there's copper.

This is our sample locations for Site 10. We wanted to see if this material along the shoreline was eroding or moving out into the bay at any rate or if it was in the bay at any concentrations that we should be alarmed about. So we used basically a computer program that randomly put down sample points,

and you can kind of see our boundaries, the square area all along the shoreline which we're concerned about.

Again, we sampled all the way out past the pier, and we sampled along the shoreline, too. So we tried to get coverage of the whole Site 10
area.

We looked at metals, and we looked at -- this is cadmium. We looked at I think about a dozen metals including cadmium, copper, mercury. I selected this one because it actually showed something, and most of them are similar to this diagram where along the shoreline you'll see -- you'll get a couple of hits with a greater concentration. And, again, the contamination is pretty much isolated to the shoreline area.

As you get a little further out, we didn't really see it.

The nature and extent. The nature of it, slag and ash, and the extent is it was pretty much kept up along the shoreline; and, in fact, there was actually where you had the concentrations where you could actually see a pile of the material and get a higher concentration right next to it.

MR. TESSADA: One more question.

When you went and showed the next to the last map, you showed the different sampling places. In the last presentation, I remember that on the west side of the beach -- west side of the pier is where you found the most radiation, and it didn't seem like there were too many sampling points there.

MR. BONSAVAGE: On the west side there were a few pieces of the slag that really just weren't excavated during the removal action or they missed them. And, again, the beach erodes, so it may have eroded and they uncovered it later on. And there was an area on that side where you could actually see that there was still some slag out there, and that slag did in fact have radium.

But looking at the bulk of the material, it was really small pieces.

MR. TESSADA: But radiation-wise it wasn't as high anymore on

the west side as it was on the right?

MR. CORDERO: I think those are sampling points for metals. That was for the sediment of metals. There's actually other -- I've seen this document, and actually I'm reviewing it right now. There's other ones.

MR. BONSAVAGE: I'll get to the map again.

This is just a diagram which basically shows how we did our Ecological Risk Assessment, and it looks at the tidal in some tidal areas, and then we looked at eelgrass as an area that may attract fish and birds.

Again, we thought that doing toxicity in bioaccumulation and then chemistry, and looking at the results of those three different types of tests and comparing them to like bioaccumulation, you just compare that to bioaccumulation say at a reference station in the bay for toxicity. It's survival of a certain -- we used the nappapod and chemistry. We compared it to concentrations around the bay. So we really compared it to reference stations is what we did.

And what we found is that for the sediments there was no significant risk. However, for the source material or the terrestrial side of the site, if we looked at the concentrations in the source material, there was a risk. Again, the beach, the concentrations were pretty low; but if you would sample the source material itself, you had some pretty high concentrations. And again, that would just drive the risk right up.

This shows where we did our toxicity tests and our bioaccumulation tests. We tried to spread it out, and we put one right next to the slag. We put one pretty far out in the corner away from where we think there's contamination. And, again, overall we really didn't see any risk at the site.

But in this area where we had like a piece left over, I think we did have higher concentrations of the metals.

And this shows the extent of what we think the extent of the slag is inland from the beach area. This basically is the shoreline. This is beach. And then from this point back is sort of a cliff, and there's like an eroding point along

here, and this is a lot less steep on this side, and over there the bank is very steep. It's about 15, 20 feet high and the other side is maybe five feet.

And the orange is what we think is the slag and ash.

Again, our report -- the conclusions are that the beach area really poses no risks -- no significant risks. There's no significant risk from groundwater. We sampled the groundwater for four quarters and really nothing showed up. And the ash and slag in the cliff poses a potential risk.

So our next step is to address that potential risk from the ash and slag in the cliff area. And to do that, we initiated a removal action.

Before we identified what we're going to do at the site, we really wanted to take a look at what our objectives are overall for mitigating the risk at this site.

Again, the first thing we wanted to do was minimize erosion of the slag, the slag waste material in the -- we call it the shoreline bluff in the cliff area. Now, erosion is really -- that's what makes it mobile. That's what moves it to the receptors.

We wanted to minimize the migration of metals and radium to the groundwater and atmosphere. Well, atmosphere isn't really our concern. The groundwater essentially is.

Minimize the infiltration of surface runoff reaching the slag waste of the belt. Reduce potential of human health and ecological risk.

And the idea of containment is that you cut off all the pathways to the material itself. If nothing can get to the material and if the material isn't moving, then there's really no risk at the site.

And we looked at mainly four different alternatives: containment with a rock revetment, a riprap material to cap; containment with a seawall; excavating and segregating the slag wastes and excavating and off-site disposal.

Now, the off-site disposal and the segregation became -- well, the off-site disposal became very expensive very fast because as soon as you have a site with low-level radiation, you have to take the special facility, and the price is very high. And, again, most of the material didn't have that radium component to it, but it would be hard to segregate it.

The second would be segregating the slag waste but, again, the material is so bound to each other and it was just a very difficult and expensive operation to segregate this material.

And the third and fourth was to contain it. Again, these two options were -- the prices or the cost was a lot less; and, again, to us it was an acceptable solution for working at that site.

So we decided that containing it would be the best choice out there, so we selected containment.

Now, to contain it -- this is a pretty busy drawing, but this shows the containment system that we're proposing for the site; and we're still working on the actual plans, but this is roughly what the containment system will look like.

We'll basically put a seawall on this end and a rock revetment, but it's like a riprap area along this side. And then we'll basically put fill on top and then cap it. I'm not sure yet what the cap exactly will be, but we will have a certain buffer area between the material and the cap or however we're going to finish the site.

These are profiles of the seawall and the rock revetment. Again, the idea of containment is to get some type of buffer system between the material and any potential receptors of material.

MS. FARGO: Mark, how did you differentiate between putting a seawall in one area and the rock riprap in the other area? Is it a matter of --

MR. BONSAVAGE: Slope.

MS. FARGO: It's slope. It's not a matter of concentrations.

MR. BONSAVAGE: No. It was geographic.

MS. FARGO: Okay.

MR. BONSAVAGE: In the steeper area we would have had to go out into the bay. We would have had to have taken part of the beach to put a rock revetment in, so we thought we'd be better off putting a straight up and down seawall in.

And here's a section of the seawall. As you can see, the purple and the brown are the source material. You'll have a wall and a little buffer area, which will both be filled with soil between the wall and the material, and also a buffer area between the top of the containment system and the material. This is really the buffer, and all it is is soil.

MR. LOCKE: Is that the sea level right there?

MR. BONSAVAGE: Here.

MR. LOCKE: That horizontal line?

MR. BONSAVAGE: And this is the rock revetment.

Again, the idea is to put clean fill between the material and any possible receptors. And also you have to finish this finish rock, which will be riprap, and the top will either be paved or vegetation.

So this is our schedule. This is what we're going to be doing up until December. Again, 15 May we'll get the revised EE/CA out.

21 May I will prepare the -- have the RAP ready for DTSC to look at. And then DTSC will take about a month to review the RAP; and at the end of their review, they're going to give me a CEQA determination.

And then I'll turn around with my contractors and revise the RAP so that it's compliant with the comments that Dan submits or the CEQA determination that he makes. So we expect changes will be made for us to comply with DTSC's requests. So we give ourselves about 30 days to do that.

Then we'll turn that around and on the 23rd or 24th of

July we expect to have the RAP out for the public to review, and there will be an announcement to the public to review the RAP.

Again, we expect the work to take place between September and December.

That's it. Any questions?

MR. GEILENFELDT: Well, basically you haven't changed this from what we looked at before.

MR. BONSAVAGE: No. It's the same thing. The only thing that really changes, we finished the RI, the Remedial Investigation, and that's available for review.

MS. FARGO: Is that currently in --

MR. BONSAVAGE: It's in the library.

MS. FARGO: -- public review period?

MR. BONSAVAGE: Yes.

MS. FARGO: Mark, do you have a hard copy of all of your slides to be incorporated in the record?

MR. BONSAVAGE: Sure.

MS. FARGO: Do you have it with you?

MR. BONSAVAGE: No.

MS. FARGO: Okay. Would you do that? I'm reminding all presenters I really like to have a copy because I can take notes over your overhead. So if you can remember, I'm sorry to chide you.

MR. BONSAVAGE: I forgot today.

MS. FARGO: That's fine. I haven't been here for a few months, but that's the policy -- my policy. I like to have a copy.

MR. BONSAVAGE: I brought them last time and you weren't here, so I decided not to bring them.

MS. FARGO: You do need to furnish that, and if you want to send me one --

MR. BONSAVAGE: I'll print it out. I even told Bill when I got here early to set up the projector, and I realized I forgot to print out the handouts.

MS. FARGO: All right. So you know.

MR. BONSAVAGE: Yes.

MS. FARGO: Thank you very much. That was a great presentation.

The next item on the agenda is the presentation of the California Environmental Quality Act by DTSC, and it's my understanding that will not be presented his evening.

But, Mr. Cordero, we do have someone -- what's the anticipated date for that?

MR. CORDERO: May. The next RAB meeting we will have somebody here or I will be giving the presentation.

MS. FARGO: I will not be at that meeting. That doesn't make me happy. I know that I won't be here.

Can we do it -- do we need to do it in May? It's my loss. Great topic.

MR. CORDERO: You're always welcome to give me a call or have something explained to you in a personal format, if you want to.

MS. FARGO: No. I think it's great.

Was that just a general information presentation?

MR. CORDERO: It was going to be a very general overview presentation of the CEQA process by the group themselves.

MS. FARGO: I'll just be the loser on this one then. But if it doesn't go forward in May, then maybe I will get to see it.

MR. CORDERO: I'm pretty sure it will be in May this time.

MS. FARGO: Okay. Thank you for making the arrangements.

The next item will be the EPA Technical Outreach Services for Communities, TOSC presentation by Bill Collins.

MR. COLLINS: Okay. There's no handout for this part of the program and no slides either.

Last month we spoke about the program that EPA provides to communities in the country that have -- generally they all have SuperFund sites or other nasty problems that need to be cleaned up, and they're willing to come forward and help.

And we discussed the need for a new body, somebody that was willing to work with the EPA on this and also to work with the RAB on it. And I remember that Bob indicated that he was willing to deal with this problem.

Bob, are you still interested?

MR. GEILENFELDT: Yeah. I talked to this lady finally. She was in Peru or someplace, but I finally got her to call me.

And she said she would be more than happy to continue with work specifically on Site 9, and she would communicate with me once she talked told you and got your approval.

MR. COLLINS: Okay.

Now, I haven't spoken to her yet, but I'm sure that it's okay with me. I want to see the program go on.

MS. FARGO: Is the limit of Ms. Masters' involvement just on Site 9?

MR. COLLINS: Just on Site 9.

MS. FARGO: And do we have a contractual agreement or something to that or is that just how she's been designated?

MR. COLLINS: No. That's what they agreed to come in and do. Actually, at one time they would have backed out because just prior to you joining the RAB, we had what we called Technical Assistance for Public Participation contracts.

We had four little contracts, and we hired small businesses essentially to come in and evaluate four of our different projects and tell the RAB what they thought. Gave them a third-party analysis.

MS. FARGO: Like kind of a consultant.

MR. COLLINS: Right. Well, this turns out to be the same thing.

MS. FARGO: Okay.

MR. COLLINS: And EPA, if somebody else is providing that service on a base, EPA normally backs out. But they agreed to stay with us on this issue with Site 9 because it was so novel, I think; and since then, we have haven't hired any more little contractors to come in and do these evaluations.

And the reason is because the RAB has to do that themselves. They have to meet and tell us what they want and come up with a scope and things like that, and it's quite a bit of work for the RAB. And

then we find the money to do the work.

MR. GEILENFELDT: I understand it's funded by EPA.

MR. COLLINS: This is funded by EPA. The other work is funded by the Navy.

MS. FARGO: Right. But it was a lot of work coordinating the consultants and the contracting aspects.

MR. COLLINS: Yes.

MR. GEILENFELDT: Finding her in Peru, that was the problem.

MR. COLLINS: It's just as much work for a little contractor as it is a big one.

So I would recommend that you keep it. You have a volunteer in Bob to do that, and all I would ask for is the rest of the RAB happy with that decision or with that volunteering? Okay.

MS. FARGO: Let's have a little bit of discussion, if you don't mind.

MR. COLLINS: Sure.

MS. FARGO: Are you going to put this to a vote, Bill?

MR. COLLINS: Yes. I would like the RAB to vote on it and okay it.

MS. FARGO: I think that would be appropriate.

I did interface with Mary probably six months ago when we were doing lengthy examination of Site 9. We devoted at least two complete RAB meetings to presentations on Site 9. And I know Mary is very knowledgeable, and I would certainly recommend continuing to involve her in the project. And I think it would be great to not have the Community Co-Chair be the contact for her.

So I would certainly be in favor of Bob being her contact and that we continue with Mary Masters.

Other comments?

MR. COLLINS: All in favor? You're in, Bob. You're our man.

MS. FARGO: Now, we will -- Mary hasn't been -- she wasn't at the last meeting, but we probably didn't invite her.

MR. COLLINS: Well, we always send her the information and she evaluates what's on the agenda and then decides whether or not it's worth spending the money to come down because she likes to save it for the big stuff.

MS. FARGO: Right. Now, are there -- do you anticipate having, say, quarterly meetings or a monthly meeting of the project managers where Site 9 would be a topic? That would be a great time for her to come, and we could set the RAB meeting in conjunction with that visit.

MR. COLLINS: Well, we haven't set the schedule for the next quarterly meeting.

MS. FARGO: I don't know whichever it would be, quarterly or the monthly. You need to tell me. Is that a good plan to link her into?

MR. COLLINS: Correct.

MS. FARGO: Okay. Perfect.

MR. COLLINS: When we have one of these meetings where we're going to devote quite a bit of time to North Island, something's important, then she's on my list to be invited. So she gets all the messages when we're going to have these meetings.

MS. FARGO: Okay. Do we need to give her a direct suggestion, "Mary, why don't you plan on this one?" Does that need to come from Bob? Can it come from you?

MR. COLLINS: It would be good if it came from Bob.

MS. FARGO: Right. I think that would be great. So as long as Bob's aware of when that would be and you coordinate.

MR. COLLINS: Bob's on the mailing list.

MR. GEILENFELDT: I normally attend those. Bill always lets me know the time.

MS. FARGO: I was attending them, and I haven't been for a while. That's sounds great.

MR. COLLINS: Okay. That's one big thing.

Now, we spoke about one other thing, and that was because Carla is sometimes out of town, we need an alternate Community Co-Chair. We're looking for a volunteer for that.

I don't know as anybody jumped forward for this one. John said that he had almost a volunteer on the line. We need to work on it.

MR. LOCKE: Bob Logan gave me a call. Told me he wasn't going to be here, but he was interested in being the Co-Chair. The only problem is he works for the recycling center at the Naval station, and I don't know if he's a direct Navy employee or a NAVNE employee, so I don't know if there is a conflict of interest there. But he is a Coronado community member.

MS. FARGO: How do I know that name? Has he been to our meetings?

MR. LOCKE: He's been to almost every one of them.

MS. FARGO: Well, the RAB should do what they feel they need to do. I apologize for my absences. They all have been necessary.

I don't want to step down. If you feel I should step down, then take that action. If someone would like to just be ready to stand by, because I feel strongly that we should have a community presence. I don't ever want this to be an impression that this is just a Navy run show, and I think we need someone to be at this table always from the community. So an alternate in my opinion is necessary.

So how do you all feel?

MR. GEILENFELDT: Agreed.

MR. COLLINS: Would somebody from the community want to call up Bob and discuss it with him? We don't have to vote on it tonight or you don't have to vote on it because it's something that the community should vote on, not -- as a Navy person, I wouldn't vote or John or Dan shouldn't vote either.

MR. LOCKE: He left me a message and he said that he would be willing to --

MR. GEILENFELDT: His name is what?

MR. LOCKE: Bob Logan.

MS. FARGO: And he'd be willing to be the Co-Chair or be an alternate with me or what does he want to do?

MR. LOCKE: Well, he was willing to be a full Co-Chair, but

being an alternate Co-Chair would be perfect.

MS. FARGO: Maybe at least till November and he'll have his shot at it.

MR. LOCKE: That might offset his connection with the Navy.

MS. FARGO: Well, do we need to find out if there's a conflict? Would that be in our bylaws or I'll investigate that, but tell me where I need to look.

MR. COLLINS: I think the only conflict ever identified in the bylaws was having one of our contractors join the RAB, but nothing else. Other than that, it's up to you folks to feel comfortable with it.

MS. FARGO: Right.

MR. GEILENFELDT: Isn't the recycling program just an employee -- non-military employee operation?

MR. LOCKE: I think he's a NAVNE employee. There aren't civil servants there, but there's a lot of what they call NAVNE employees. They are like hourly wage and they don't have benefits or anything.

MS. FARGO: But I think that qualifies him to be on the RAB. A NAVNE employee, a Navy employee, a community resident. That's one of the -- am I wrong that that's one of the criteria for having --

MR. GEILENFELDT: But he is a Coronado resident?

MR. LOCKE: Yes.

MS. FARGO: I would call him if I knew his telephone number.

MR. COLLINS: And I don't have it.

MS. FARGO: Okay. He's a Coronado resident and his name sounds familiar. I don't know why I'm not picturing him.

MR. LOCKE: You've been out of town for a long time. I don't have it, but I'll get it to you.

MS. FARGO: Okay. Why don't we then -- if everyone's in agreement with that tact --

MR. COLLINS: And then we can vote on it the next time we meet.

MS. FARGO: Okay.

MR. COLLINS: Now, the last thing, which is the toughest part, probably, is deciding on the frequency of our meetings. Last month I proposed that the RAB go to quarterly meetings rather than our almost monthly. Right now we meet ten times a year, and I proposed that we go to quarterly.

One of the reasons being that the attendance is low, and another one being that pretty much every month we just have the same topics over and over again, and it's not quite as jumping as it used to be. If it does become busy again, we could call extra meetings, and then vote to go back to bimonthly or monthly.

Has anybody thought about it in the past month?

MS. FARGO: Did you have open discussion on this topic?

MR. COLLINS: We discussed it a little bit last time, but not a lot.

MS. FARGO: Is there any further discussion? We should open that up, I think.

MR. GEILENFELDT: If I may speak on this.

I think quarterly meetings based on the current progression, as it is tapering off according to Bill, probably makes sense. Of course, I'm a little bit biased because I do attend these quarterly contractor's meetings, and they're very informative. I get quite a bit of information there. And, naturally, then there's some repetition -- not a lot but there is some.

So I may be biased in making that statement. Someone else may not feel that way.

DR. MARSHALL: I make that motion that we go to quarterly with call meetings as needed.

MR. VAN ROOY: Second it.

MS. FARGO: All in favor of the motion? Opposed? Is there any opposition? Abstentions? Okay.

MR. COLLINS: Okay. Now, the next big thing is when to start it? To finish out the year as we originally planned or to start it this summer?

We need to meet in May because that's when our CEQA

people are lined up, and I don't want to not meet and then miss them and then never get them in the loop again. We are having some difficulty with that.

MR. GEILENFELDT: Is there any chance, though, we could -- as a suggestion, we coordinate these RAB meetings with the quarterly meeting at Bechtel?

MR. COLLINS: Well, the RAB meetings have to be at night for the public.

MR. GEILENFELDT: But I mean in that same week?

MS. FARGO: What month do you hold those quarterly meetings?

MR. COLLINS: We just had one in April, so we wouldn't be doing one again till July. We're not having a RAB meeting in July. We haven't picked the date either for July, so we probably wouldn't do it till August in that case.

But it's up to you folks. Meet in May and then meet in August?

MR. GEILENFELDT: Skip from May to August? That would be the first quarter?

MS. FARGO: Do May, then in August.

MR. GEILENFELDT: We skip July anyway. So it would be June we skip would be the only meeting.

MR. COLLINS: Correct. And then have another RAB meeting then in August. Then it gets a little tight because we have to have a meeting this fall for elections.

MS. FARGO: November. If we're having them quarterly, it will be every three months; right? May, August, November, February.

MR. COLLINS: And then in November we'll set things up for the whole next year. Does that make sense?

MR. GEILENFELDT: So it's going to be May, August and November.

MR. COLLINS: Yes.

MS. FARGO: And May 18th, that date is just locked in, huh?

MR. COLLINS: Yes.

MS. FARGO: I'm still unhappy about that but that's okay.

MR. COLLINS: If for some reason they've had to circle the

wagons and the railroad's cut them off and there's been an earthquake, they might consider another date, but they're going to have to give Dan a very good excuse.

MS. FARGO: You know what? I'll read the transcript -- the full transcript, not just the meeting notes. I'll read the full transcript. Then I'll have it.

MR. CORDERO: You'll have a full package, too.

MR. COLLINS: That would work out fine.

MS. FARGO: Now, if we need to extend the length of our meetings, do you anticipate that that would be necessary?

MR. COLLINS: I really don't see it happening.

MS. FARGO: Two hours is still acceptable?

MR. COLLINS: When it has happened, all we've done is agreed to start a half hour early because we have to be out of here at 8:30.

MS. FARGO: So you'll give us a heads up. If it looks like there there's so much on the agenda that we need to start at 6:00, then we can do that.

MR. COLLINS: Right.

MS. FARGO: Okay. Great.

Are you ready for the next topic?

MR. COLLINS: Yes.

MS. FARGO: Which is Site 9 soil vapor extraction.

MR. COLLINS: A very simple thing. There's a handout in the back.

I wanted to tell everybody that since last month, it appears that we've turned off the steam system.

Our last day of injecting steam was April 14th; and since that time or between last month and this month we've continued to recover free product, the fuel with the TCE contamination and soil vapors. And that's still proceeding very nicely.

We're up to about -- we're on the last month. Another 180 gallons of free product, and so now we've reached a total of

2025 gallons, and it looks like we've gone up about 198 gallons, too, of TCE that we recovered as vapors.

At this time we're preparing the plans for full-scale implementation at the site, and this little pilot study took place on one little lobe of the plume which represents about one-quarter of that part of the site.

And so this next system will not necessarily be four times as big. There will be many injection wells and many recovery wells, and the whole operation will be that we will go to one point and we will inject steam, heat up that area; then we'll move over to another boring and heat up that area. This ground holds the heat very well.

And we'll just hop around like this and we'll finally get the whole place at about 150 degrees or so. And we'll just be extracting like basic people, and it works really well.

And there is another area. We may try this technique to an Area 3 which is on the far side of Site 9. I wish I had my map up.

MS. FARGO: It's still in Site 9, though?

MR. COLLINS: Just another spot. We've discovered a similar problem over there.

MS. FARGO: A little separate plume?

MR. COLLINS: Yes. We'll be reporting it to Dan. He may be hearing this for the very first time. I usually like to tell him ahead of time, but it's a very similar thing.

At Area 3 we completed our removal action there. We lowered the risk that was present from the chlorinated hydrocarbons. We lowered the risk, so we met our goal there for the removal action. And we removed quite a bit of mass, so we met our goal there.

So the first phase of the removal is completed, and we're issuing a report that will document that. We are going to recommend in the same report, though, that we come back and install a system similar to what we have for Areas 1 and 8. And we would do that in the fall -- next fiscal year and recover additional fuel

there.

MS. FARGO: Now, you're distinguishing between -- when you say "the chlorinated," are you talking about DNAPLs or no?

MR. COLLINS: It's that kind of a chemical, yes.

MS. FARGO: And what you're actually recovering with the steam injection are LNAPLs.

MR. COLLINS: What we have, the funny thing is, LNAPLs and DNAPLs commingle very well. One dissolves in the next.

MS. FARGO: Unless they really sunk in there.

MR. COLLINS: Yes. One is lighter than water and one's heavier than water. There is more that's lighter than water, so it's able to hold the heavier material and keep it from sinking. So it's easy to get to.

It actually works out to our benefit versus if the situation was reversed and there was more DNAPL, it would have been gone.

MS. FARGO: Bill, tell me again because I forget. What do you anticipate the total volume of the LNAPL free product is at Site 9?

MR. COLLINS: Well, there's a gross range running from 300,000 gallons to 600,000 gallons. And people should realize, too, that it's going to be impossible to recover it all.

MS. FARGO: Right.

MR. COLLINS: But we will recover a lot. And by using many different techniques, we may recover more than you would normally expect because in the soil vapor extraction it helps to remove material and also the pumping using the steam to heat up the LNAPLs. It flows very easily.

MS. FARGO: Right.

With your pilot study did you have an anticipated goal of recovering a certain quantity from an area, and did you meet that goal, exceed that goal?

MR. COLLINS: The pilot study was just -- the only goal was to see does it really work. And we found out that it works and it's increased our efficiency by quite a bit. It's amazing.

MR. TESSADA: Bill, how much percentage do you expect to recover out of the entire plume?

MR. COLLINS: In a normal fuel plume, they get 40, 50 percent. This is -- it's fuel but it's also DNAPLs, the heavier liquids, too.

I imagine we'll do just as well, maybe better because we're going to be persistent about cleaning this site up. Fuel you have more latitudes but you have less risk with fuel.

But the chlorinated substance, it causes other problems, and so we'll be working at it harder 'cause we won't open up the ground up there. In other words, to treat other problems -- if we had metals or we had creosote or something like that, we won't open up the ground to get to those problems until we've cleaned up the VOCs. We don't want to put a tent over the whole site.

MR. TESSADA: What happens to the other half? Let's say you recover 50 or 60.

MR. COLLINS: Some will naturally attenuate and some we may have to come in a third and fourth time with other techniques that are also good.

MS. FARGO: And you're doing both free product recovery on the LNAPLs, which I envision as just sitting on the groundwater.

MR. COLLINS: Right.

MS. FARGO: And then you're going to do -- you're also doing volatile recovery.

MR. COLLINS: Yes. Soil vapor extraction, yes.

MS. FARGO: Okay.

MR. COLLINS: So we're hitting it with two hammers right now.

MR. GEILENFELDT: This is what Mary Masters addressed more than once when I talked to her. Her concern, Bill, for the intrusion of these contaminants under the bay -- groundwater under the bay.

MR. COLLINS: Okay. But that's another issue at the same site. That's a deeper issue.

This problem was within 10 or 15 feet of the surface. The other issue she was speaking of is 85 feet.

MS. FARGO: DNAPLs that have sunk and traveled.

MR. COLLINS: Right.

Getting back to the handout here, one thing I had the contractor add this month, too, was a flow chart that shows you the process for removing the waste from the ground so that you can see what's going on.

I know when we take visits out there and all you see is machinery, it's hard to figure out which way's in and which way's out and where does it go from here. So a simple diagram that shows you how we're going to recover the material from the soil, the groundwater, the vadose zone, free product -- everything. Pull it out, run it through the different collection devices, and end up cleaning up the site.

That's pretty much it.

MS. FARGO: This is a good graphic. And you'll give us a copy of your package for the record.

MR. COLLINS: Yes. Absolutely.

And that's it, unless somebody else has got a questions on Site 9. Okay.

MS. FARGO: All right. Then it looks like we are up to public comments, questions and answers.

We don't have a lot of general public attendance tonight. Any other topics that haven't been brought up?

MR. COLLINS: What subjects would you like to see at the next meeting in May?

MS. FARGO: Besides CEQA?

MR. COLLINS: CEQA will be No. 1. We'll actually put it first if they don't mind. That way if they're flying back -- they're coming from Sacramento.

MR. CORDERO: Yes.

MS. FARGO: Can I ask a question? I did read in the "Coronado Journal" that there has been a ruling that the CEQA does not apply to the Navy's project of home-porting their carriers. I

thought that was kind of interesting.

MR. COLLINS: I believe that's with respect to the Coastal Commission Act.

MR. GEILENFELDT: Coastal Zone Management Plan.

MR. COLLINS: It would still require the Water Board is going to go through the CEQA process. They have to.

MR. TESSADA: That really basically said that the Navy's project to home-port the carriers was not a project under CEQA. That was the argument.

MR. COLLINS: Oh, as handled by Coastal --

MR. TESSADA: As handled by the CCC.

MR. COLLINS: Yes. But as handled by the Water Board it is.

MR. TESSADA: Because they haven't any scope over it. The Regional Board is now the lead agency for CEQA review. So they will perform an entire CEQA review.

MS. FARGO: Okay. And the Board's involvement is because of the continuing dredging or --

MR. COLLINS: It's just filling in part of the bay.

MR. TESSADA: The thermal water discharges.

MS. FARGO: Once the carriers are there you mean?

MR. TESSADA: Yes. The nuclear carriers use bay water to cool their nuclear reactors.

MS. FARGO: On the issue of the new spoil pile, apparently there's going to be another series of building, dredging, and they're going to be harvesting soils in front of our yacht club.

MR. COLLINS: In front of the mitigation area.

MS. FARGO: Right. Is that a topic that the RAB is going to be discussing?

MR. COLLINS: No. That's outside our purview. That's a construction job. There's a lot of things that we can't talk about.

MS. FARGO: I was just curious about that. I wasn't aware of that one.

MR. GEILENFELDT: Does it say anything about more dredging for the other two carriers?

MS. FARGO: That's what my understanding is. The proposal is to create a mini island or some sort of a mound probably under the current of the bay in the vicinity of the Coronado Yacht Club.

MR. TESSADA: Yes.

MR. CLEMENTS: It's on the east side of the amphibious base, so it's not in Glorietta Bay.

MS. FARGO: No.

MR. VAN ROOY: But it's where sailing regattas are held periodically.

MS. FARGO: Right. And it's impacting the yacht club. I just had heard that, and I didn't know if we -- okay.

MR. TESSADA: I just wanted to bring up what Bob has just mentioned about the deeper
contaminants, that might be something interesting for the next meeting. I'd like to hear about how that's going to be addressed.

MR. COLLINS: Sure.

MS. FARGO: We certainly had a great presentation on that. That's when we were -- I think we had two months of back-to-back meetings on Site 9.

MR. COLLINS: Okay. I'll give you the RI update. Because there will be a report out this summer to read on that for light reading.

MS. FARGO: What's the topic?

MR. COLLINS: The part of the remedial investigation.

MS. FARGO: The RI.

MR. COLLINS: Correct.

MS. FARGO: That would be a good update topic.

MR. LOCKE: Can we get an EE/CA person to present?

MR. COLLINS: You mean EDS?

MR. LOCKE: Marine environmental --

MR. COLLINS: No. They haven't been with us for a long time.

MR. LOCKE: Okay.

MR. COLLINS: And I'll do the usual Site 9 removal update that I did tonight.

MS. FARGO: Any other things that we haven't heard about in a

long time? Six months or so? Not that I'm -- I always enjoy the updates but --

MR. COLLINS: You've missed a number of times.

MR. BONSAVAGE: That's why we're doing quarterly. We've covered everything.

MR. COLLINS: You missed the presentation on Site 11.

MS. FARGO: What's Site 11?

MR. COLLINS: The IWTP.

MR. CLEMENTS: We did Site 5 two months ago.

MR. GEILENFELDT: If you review Bill Collins' recent Clean II manual, that's pretty comprehensive. That should update you pretty well.

MR. LOCKE: What about a status of all the sites -- the 12 sites?

MR. GEILENFELDT: Well, that book that you gave me was a pretty comprehensive status, I thought.

MR. COLLINS: I could give you an overview of what's going on.

MS. FARGO: That would be nice because we're not going to meet till August.

MR. COLLINS: Just snapshots. Okay.

MS. FARGO: Any other topics for agenda items that you can think of right now?

MR. COLLINS: This will take a long time. And, of course, CEQA. Okay.

MS. FARGO: If there's no other business, we will adjourn the meeting.

(Whereupon, at 7:35 p.m. the meeting was adjourned.)

STATE OF CALIFORNIA)
: ss.
COUNTY OF SAN DIEGO)

I, Nancy A. Lee, CSR No. 3870, do hereby certify that I reported in shorthand the above proceedings on Thursday, April 20, 2000, at 640 Orange Avenue, Winn Room, in the City of Coronado, County of San Diego, State of California; and I do further certify that the above and foregoing pages, numbered 1 to --, inclusive, contain a true and correct transcript of all of said proceedings.

DATED: _____, 2000.

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Nancy A. Lee